



MATERIAL SAFETY DATA SHEET

5C Quintacel

1. Identification of the substance and of the Company undertaking.

(as per EC directive)

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Product An aqueous concentrate containing Chlormequat chloride.
Product CAS No: 999-81-5 + 67-48-1
Reference No: 452340
Use: Plant growth regulator.

2. Composition/Information on ingredients.

Number	Ingredient
1	Chlormequat chloride
2	Choline chloride

Number	CAS No	Hazard Symbols	R phrases	Concentration	Annex 1 Index
1	999-81-5	Xn	R21/22	640g/l	007-003-00-6
2	67-48-1	Xi	R36/37/38	64g/l	

3. Hazards Identification.

Harmful if swallowed.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

4. First Aid Measures

Inhalation: Remove patient to fresh air until recovered.
Administer oxygen or artificial respiration if patient has difficulty breathing.
Seek medical attention.

Skin Contact: Remove contaminated clothing and launder before re-use.
Wash affected area with soap and water.
Seek medical attention if there are persistent problems.

Eye Contact: Irrigate eye with fresh water for at least 15 minutes
Seek medical attention

Ingestion: Do not induce vomiting.
Rinse mouth out with water.

Advice for Medical Practitioners: Treat symptomatically.

5. Fire-Fighting Measures

Suitable Extinguisher: Water -Take measures to avoid water entering drains or water courses.
Carbon dioxide.
Alcohol resistant foam.
Dry powder.

Unsuitable Extinguisher: High volume water jet.

Special Exposure Hazards: Dangerous toxic fumes may be given off.
(NO_x, HCl, Cl₂, CO)

Protective Equipment: Protective clothing and breathing apparatus.

6. Accidental Release Measures

Personal Precautions: Avoid contact with skin
Wear personal protective equipment (See section 8)

Environmental Precautions: Do not allow to enter drains or water courses
Advise relevant authorities in case of contamination of public waters

Methods For Cleaning: Contain spill and absorb with sand or propriety absorbent (vermiculite).
Collect contaminated material in heavy duty plastic bags or drums.
Dispose of through a reputable waste disposal contractor.
In the event of spillage's, inform the local water services company and The Environment Agency or other relevant authorities immediately.

7. Handling and Storage

Handling Good industrial practice in housekeeping personal hygiene should be followed.
Wear personal protective clothing.
Handle in well ventilated areas.
Avoid inhaling fumes or spray mist.

Storage: Keep only in original container.
Store in cool, well ventilated areas.
Keep away from food, drink and animal feeding stuffs.
Keep out of reach of children.

8. Exposure Controls/Personal Protection

Take Measures to Prevent: Contact with skin, eyes and clothing.
Provide adequate ventilation.

Exposure Control Limits: No exposure limits have been determined.

Respiratory Protection: In areas of poor ventilation use CN510 (Class FFP1) combi type respirator.

Hand Protection: Nitrile or rubber gloves.

Skin Protection: Protective overalls ensuring arms and legs are covered.

Eye Protection: Goggles or safety glasses.

9. Physical and Chemical Properties

Appearance: Light yellow liquid.

Odour: Amine like.

pH:	5 - 7
Boiling Point:	Approx 100°C (aqueous solution)
Flash Point (Open or Closed):	Does not flash.
Flammability (gas/solid):	Non flammable.
Autoflammability:	None.
Explosive Properties:	Not explosive.
Oxidising Properties:	Not known.
Vapour Pressure:	< 0.01m pa @ 20°C (Chlormequat chloride)
Density:	1.134g/ml @ 20°C.
Solubility:	Completely miscible with water.
Viscosity:	approx 20mPa @ 20°C
Octanol/water co-efficient:	logP = -1.59 (pH 7, Chlormequat chloride)
Vapour Density:	Not available.
Evaporation rate:	Not available.
Other Properties:	

10. Stability and Reactivity

Conditions to Avoid:	Stable under normal conditions. Thermal decomposition can take place above 240°C.
Materials to Avoid:	Avoid contact with aluminium and its alloys.
Hazardous Decomposition	Thermal decomposition products include NO _x , HCl, CL ₂ and CO.

11. Toxicological Information

Acute Toxicity:	LD50 Oral, rat >550mg/kg LD50 Dermal, rat >2000mg/kg. LC50, inhalation,(4hr), rat >0.71mg/l
Irritation:	Not irritating to skin. Not irritating to eyes.
Sensitisation:	Not sensitising to skin.

12. Ecological Information

Biological Degradability:	Readily biodegradable according to the appropriate OECD test. DT50, soil 8 - 10 days. Information applies to Chlormequat chloride. No bioaccumulation.
Ecotoxicity:	fish - LC50(96hr) rainbowtrout: > 430mg/l daphnia - EC50 (48hr) > 31,7 mg/l algae - IC50(72hr) Algae: > 661mg/l Not toxic to bees.

13. Disposal Considerations

Safe Handling of Residues/Waste:	Dispose of unwanted product and packaging safely in accordance with national and local regulations.
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14. Transport Information

Special Transport Precautions:

Road Classification: Dangerous substance as defined in the above regulations.
UN:1760 Corrosive liquid n.o.s. (chlormequat chloride 62%)
Class :8 Packing group III

Maritime Classification: Dangerous substance as defined in the above regulations.
UN:1760 Corrosive liquid n.o.s. (chlormequat chloride 62%)
Class :8 Packing group III

Air Classification: Dangerous substance as defined in the above regulations.
UN:1760 Corrosive liquid n.o.s. (chlormequat chloride 62%)
Class :8 Packing group III

15. Regulatory Information

Label Information: Classification according to 99/45/EC.

Xn - Harmful
R22 - Harmful if swallowed.
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S2 - Keep out of the reach of children.
S7 - Keep containers tightly closed.
S13 - Keep away from food, drink and animal feedingstuffs.
S20/21 - When using do not drink, eat or smoke.
S36/37 - Wear suitable protective clothing and eye/face protection.
S46 - If swallowed, seek medical advice immediately and show this container or label.
S61 - Avoid release to the environment; refer to special instructions/Safety data sheet.

16. Other Information

Reason for revision:- Changes to sections - all sections.

This Material Safety Data Sheet was compiled in compliance with Council Directive 91/155/EEC and their subsequent amendments.

The information given herein is, to the best of our knowledge, correct and is given in good faith but no warranty, expressed or implied, is given.